Choice of College Major Can Mean Millions Over Career, Census Bureau Reports

The field of bachelor’s degree makes a considerable difference in a college graduate’s annual earnings, according to 2011 American Community Survey (ACS) data released today by the U.S. Census Bureau. These differences add up over the span of one’s work-life. For example, among people whose highest degree is a bachelor’s, engineering majors earn $1.6 million more than education majors.

These findings come from two separate ACS reports released today. The first report Field of Degree and Earnings by Selected Employment Characteristics: 2011, provides information about the relationship between the field of bachelor’s degrees, median annual earnings, and the likelihood of full-time employment.

According to this report, people who majored in engineering had the highest earnings of any bachelor’s degree field, at $92,000 per year in 2011. At the other end of the continuum were fields such as visual and performing arts, communications, education and psychology, with median annual earnings of $55,000 or less. People who majored in a science and engineering field were more likely to be employed full-time, year-round. So too were those who majored in business, the most common field of study. Sixty-four percent of business majors were full-time, year-round workers. On the other hand, the same was true of less than half of those who majored in literature and languages or visual and performing arts.

The second report, Work-Life Earnings by Field of Degree and Occupation for People With a Bachelor’s Degree: 2011, explores the relationship between how far one goes in school and how much one might make over the course of a 40-year career (from age 25 to 64). It goes into further detail for people whose highest degree is a bachelor’s by investigating how college major and occupation impact these work-life earnings. This is the first time the Census Bureau has ever analyzed work-life earnings by both field of degree and occupation.

The brief shows that education pays off in a big way, with estimated work-life earnings ranging from $936,000 for those with less than a high school education to $4.2 million for people with professional degrees.

Even within one level of attainment — bachelor’s — the combination of what one chooses to study in college and the careers pursued afterward can make a difference almost equally as large. For instance, engineering majors who are in management earn $4.1 million during their work-life. At the other extreme, arts majors and education majors who were service workers make an estimated $1.3 million.

Later this month, the Census Bureau will release for the first time three-year ACS estimates (covering 2009-2011) on field of degree, which will include all geographic areas with a population of 20,000 or more.

Also released today was a series of infographics, Pathways After a Bachelor’s Degree. These infographics, based on the 2010 ACS, examine 13 different bachelor’s degree majors and for each one, looks at the estimated work-life earnings at each level of education from a bachelor’s on up, as well as work-life earnings among selected occupations at these different education levels. They show, for instance, among social science majors working as financial managers, those who have a bachelor’s degree earn $3.5 million while those with a master's degree earn $4.6 million over a work-life.

Other highlights from these products:

- Fields of study that have higher work-life earnings than the average for all people with bachelor’s degree include engineering, computers and math, science and engineering-related majors, business, physical sciences and social science.

- Different majors provide different earnings even within the same occupation. Of full-time, year-round workers in sales occupations, bachelor's degree holders with a major in engineering have median work-life earnings of $3.3 million, while those of arts majors are $1.9 million.

- Different occupations provided different earnings even with the same major field of study. Among people whose highest degree is a bachelor’s, liberal arts majors working in computer- and mathematics-related occupations have median work-life earnings of $2.9 million, while liberal arts majors working in office support occupations have earnings of $1.6 million.

- People whose bachelor’s degree was in engineering were the most likely to be working in the private sector in 2011. Education majors were most likely to be working for government (which includes public schools).

- Among workers who finished their schooling with a bachelor’s degree - no matter what they majored in — those working for wage or salary had higher median earnings than those who were employed by themselves or in their own business. However, workers with master’s, professional or doctorate degrees had higher median earnings with self-employment if their bachelor’s degrees were in certain fields. People with a bachelor’s in science and engineering who went on to earn a higher degree had median annual self-employment earnings of about $100,000, while their median annual wage-and-salary earnings were $90,000.

The American Community Survey provides a wide range of important statistics about people and housing for every community across the nation and Puerto Rico. The results are used by everyone from retailers, homebuilders and fire departments, to town and city planners. The survey is the only source of local estimates for most of the 40 topics it covers, such as education, occupation, language,
nativity, ancestry and housing costs for even the smallest communities. Ever since Thomas Jefferson directed the first census in 1790, census questions have collected detailed characteristics about our nation's people and economy.

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